INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB 03/03779

I. Basis of the report

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17))*:

Description, Pages

1-13 as originally filed

Claims, Numbers

1-40 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

   These elements were available or furnished to this Authority in the following language: , which is:

   ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).

   ☐ the language of publication of the international application (under Rule 48.3(b)).

   ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

   ☐ contained in the international application in written form.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority in written form.

   ☐ furnished subsequently to this Authority in computer readable form.

   ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

   ☐ the description, pages:

   ☐ the claims, Nos.:

   ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

   (Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	18-21,25-40
	No:	Claims	1-17,22-24
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-40
Industrial applicability (IA)	Yes:	Claims	1-40
	No:	Claims	

2. Citations and explanations

see separate sheet

Re Item I

Basis of the report

1) Claims 11-14,33-34 and 38-39 specify trade marks (Eudragit, Eudragit E-100, Eudragit EPO) for which it may not be guaranteed that the composition of the product referred to is not modified while maintaining its name during the term of the patent. As they are **not generally recognised** as having a **precise meaning** and their use **seems to be avoidable** by using the formula of claims 10,32 and 37 (see Guidelines CIII 4.5b and CII 4.16 and 4.17), they are not allowable according to Art. 6 PCT.

For further processing it would be assumed that the subject-matter of the said claims 11-14,33-34 and 38-39 **describes nothing more than** the formula of claims 10,32 and 37.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

2) The documents cited in the International Search Report (ISR) were numbered respectively from D1-D6; this numbering results from the citation order in the ISR and will be used for the procedure. Unless otherwise specified, the cited passages of each document in the ISR will be considered.

3) Subject-matter of present application

The subject-matter of present application is directed to a taste-masked dosage form or process of manufacturing it, characterized in that the wt/wt ratio of the **drug:polymer is less than 1:2**. In other terms there is more polymer in weight than the drug.
Put in other words, it would mean that the ratio **polymer:drug is more than 2:1**.
Applicant's attention is drawn with the fact that D4 fulfills this criteria (see examples 1 and 2) contrary to his statement in present application (see p.21-30).

4) Novelty and inventive step according to Art. 33(2) and 33(3) PCT

4a) D3 describes a taste-masked dosage form comprising a nonpareil core having coated thereon a first layer comprising the active substance and a second layer of a masking taste copolymer of dimethylaminoethyl and methyl acrylate (see col.1 L.37-38). The weight ratio drug: polymer (see col.2 L.27-31) amounts 80:288 (=0.277) which fulfills the criteria of present application (less than 1:2 i.e. less than 0.5).

This disclosure anticipates the subject-matter of present claims 1-24 which is not novel and/or inventive.

It seems that the subject-matter of claims 25-40 is novel in view of D3 which fails to describe a taste-masked dosage form, wherein a dimethylaminoethylacrylate polymer **and** the drug **form a layer** around the inert core.
However it does not involve an inventive step because the applicant does not shows with support of experimental test that the problem, which is to provide a dosage form having no taste, is solved.

4b) D4 is directed to a taste-masked micromatrix granule which is manufactured by spray drying a solution or suspension of a drug and a dimethylaminoethyl-acrylate polymer (see examples 1-2, table 1). The ratio drug:polymer is **less than 1:2** (see p.6 L.9). In other terms there is more polymer in weight than the drug.

This disclosure anticipates the subject-matter of present claims 1-17,22-24 which is not novel and/or inventive.

It seems that the subject-matter of claims 18-21,25-34 and 35-40 is novel in view of D4 which fails to describe a taste-masked dosage form having an **inert core.**
However it does not involve an inventive step for the following reasons:

The technical problem to be solved consists in providing an alternative dosage form having a masked taste, wherein the saliva of a person comes directly into contact with a composition containing a drug and a dimethylaminoethyl-acrylate polymer.
The solution of present application, which is to coat an inert core with a solution or dispersion comprising the drug and a dimethylaminoethylacrylate polymer, does not involve an inventive step in view of D4 because it is considered as an obvious alternative that the skilled man in the art will perform **routinely** in order not to interact with prior art.
An inventive step would be recognized **only if the applicant demonstrates** that present dosage form having an inert core has a **surprising or improved effect compared to the granules of D4.**
Moreover the applicant does not show that present dosage form does not have a taste.

4c) D5 is directed to a taste-masked granule which is manufactured by spray drying a suspension or solution of the drug with a dimethylaminoethylacrylate polymer (see examples 1-3, claim1). The weight ratio drug: polymer (see p.3 L.41,44) amounts for example 270:115.2 (=2.34) **which does not fulfill** the criteria of present application (ratio less than 1:2 i.e. less than 0.5). In other terms there is more drug in weight than polymer.

Present application seems to be novel over D5 which fails to describe a drug:polymer ratio of less than 1:2.
However it does not involve an inventive step over D5 because the applicant does not shows with support of experimental test that the problem, which is to provide an alternative dosage form having no taste, is solved.

4d) Should the applicant renders the subject-matter of the present application novel or inventive by stressing out the relevance of a technical feature that is not described explicitly in prior art or by introducing into the claims the use of a **specific excipient or a specific range** or whatever, inventive step would be recognized **only if he demonstrates** that **a surprising or improved effect** is attributed to the introduced technical feature that the skilled man in the art could not deduct from the prior art.

In the absence of a surprising effect in comparison with prior art, inventive step cannot be acknowledged because the introduced technical feature would be considered as an **obvious alternative** that the skilled man in the art would perform **routinely** in order not to interact with prior art.

For the regional phase:

5) Any information the applicant may wish to submit concerning the subject-matter of the invention, for example further details of its advantages or of the problem it solves, and for which there is no basis in the application as filed, should be confined to the letter of reply and not be incorporated into the application.

6) The attention of the applicant is drawn to the fact that the application may not be amended in such a way that it contains subject-matter **which extends beyond the content of the application as filed.**

In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8(a) PCT). Preferably these indications should be submitted **in handwritten** form on a copy of the relevant parts of the application as filed.

7) The applicant is kindly requested to take account of the above objections and give convincing argumentations. The applicant should also indicate in the letter of reply the difference of the subject-matter of the new claim vis-à-vis the state of the art and the significance thereof.

Re Item VIII
Certain observations on the international application

8) **It seems that the feature "dimethylaminoethylmethacrylate"** is **essential** to the definition of the invention.
However the fact that it is said in the description that the polymer **may** include a dimethylaminoethyl group (see for example p.4 L.3, p.6 L.15) **implies that this feature is not essential.** This disclosure is in contradiction with present claims which consequently do not fulfill the requirement of Art. 6 PCT for lack of clarity.

In order to comply with Art.6 PCT the applicant is requested to replace the wording "the polymer **may** include" by "the polymer **must** include".

9) Although claims 1,25 and 35 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

Hence, claims 1,25 and 35 do not meet the requirements of Article 6 PCT.

In order to overcome this objection, it would appear appropriate to file an amended set of claims defining the relevant subject-matter in terms of a single claim in each category followed by dependent claims covering features which are merely optional (Rule 6.4 PCT). Applicant should take care however not to add subject-matter which extends beyond the content of the application (Art. 19/34 PCT).

Failure to do so or to give convincing argumentations might lead to the substantive examination of only the first independent claim and its apending claims.